

KHUDYAYEV, S.L.

First boundary value problem for nonlinear parabolic equations.  
Dokl.AN SSSR 149 no.3:535-538 Mr '63. (MIRA 16:4)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom  
I.G.Petrovskim.  
(Boundary value problems) (Differential equations)

KHUDYKH, M.

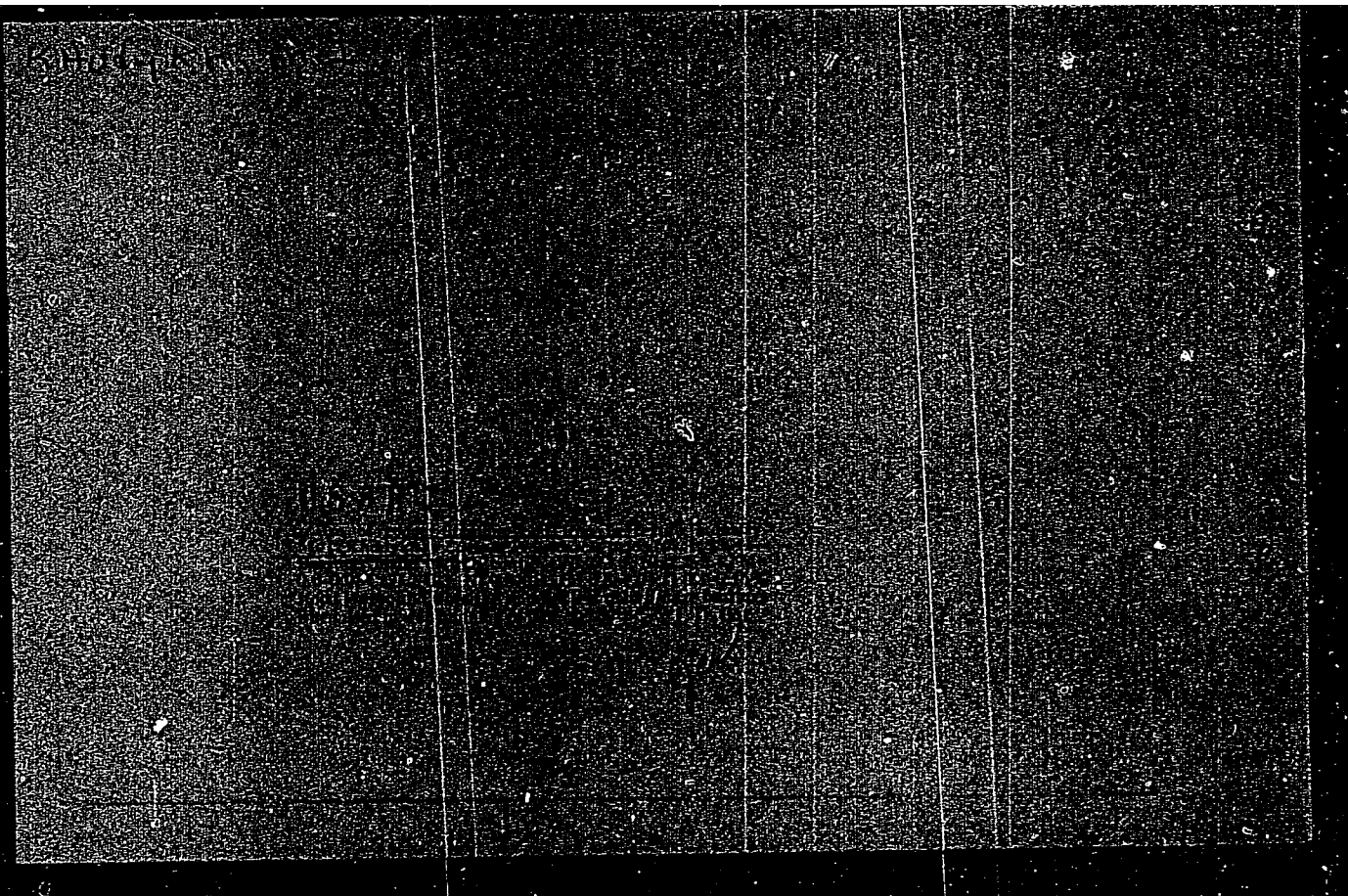
Remont Tekstilnogo Oborudovaniia (Repair of Textile Machinery -  
Technology and Organization)

292 p. 1.50

SO: Four Continent Book List, April 1954

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000722420008-6



APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R000722420008-6"

KHODYKH, Mikhail Il'ich; KRUGLOV, N.P., retsenzents; MANSUROV, V.N.,  
retsenzents; KOPELEVICH, Ye.I., redaktor; MEDVEDEV, L.Ya.,  
tekhnicheskii redaktor

[Repair and installation of equipment in textile enterprises and  
light industries; the general part] Remont i montazh oborudovaniia  
predpriatii tekstil'noi i legkoi promyshlennosti; obshchaya chast'.  
Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva legkoi promyshl.  
SSSR, 1956. 310 p. (MIRA 9:9)  
(Machinery)

KHODYKH, Mikhail Il'ich,; BELIN'KIY, S.I., retsenzent.; PRYANICHNIKOV,  
V.P., retsenzent.; KOPELEVICH, Ye.I., red.; KOGAN, V.V., tekhn. red.

[Repairing and assembling textile machinery] Remont i montazh  
tkatskogo oborudovaniia. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry  
po legkoi promyshl., 1958. 342 p. (MIRA 11:11)  
(Textile machinery--Maintenance and repair)

KHUDYKH, M. I., Doc Tech Sci (diss) -- "Some problems of the life expectancy of spindle joints". Moscow, 1959. 24 pp (Min Higher Educ USSR, Moscow Textile Inst), 150 copies (KL, No 25, 1959, 132)

S/123/61/000/012/005/042  
A004/A101

AUTHOR: Khudykh, M. I.

TITLE: Wear of cold-worked metal

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 12, 1961, 17, abstract 12A134 (V sb. "Povysheniye isnosostoykosti i sroka sluzhby mashin. v. I", Kiyev, AN UkrSSR, 1960, 359-375)

TEXT: The author presents the results of investigating the wear of cold-worked fine-grained copper depending on the specific load and velocity of relative motion. The specimens were subjected to preliminary static compression to degrees of deformation in the range of 3.2 - 67%. The abrasive tests were carried out on a face friction installation at a specific pressure  $p = 0.125 - 35 \text{ kg/mm}^2$  and a constant velocity ( $v = 4.72 \text{ m/min}$ ), as well as at a variable velocity in the range of  $v = 4.72 - 56.7 \text{ m/min}$  and a pressure of  $p = 3.1 \text{ kg/mm}^2$ . There are 15 figures and 22 references. ✓

N. Il'ina

[Abstracter's note: Complete translation]

Card 1/1

BELEN'KIY, Simon Isakovich; KHUDYKH, M.I., prof., retsenezent; KATS, N.V., dots., spets. red.; MIZERI, A.A., dots., spets. red.; KALININA, N.M., red.; SHAPENKOVA, T.Z., tekhn. red.

[Handbook on the maintenance and repair of textile machinery; information on materials used for the manufacture and repair of textile machinery, on the reconditioning of parts, allowances and fittings] Spravochnik po remontu tekstil'nogo oborudovaniia; svo- deniia o materialakh, primeniiaemykh pri izgotovlenii detalei i re- monta tekstil'nykh mashin, o vosstanovlenii detalei, dopuskakh i posadkakh. Moskva, Izd-vo nauchno-tekhn. lit-ry RSPSR, 1961. 717 p.  
(MIRA 14:11.)

(Textile machinery--Maintenance and repair)



KHODYKH, M.I.

Some problems in the wear-out of spindles. Tren.i izn.mash.  
no.15:141-151 '62. (MIRA 15:4)  
(Spinning machinery--Testing)

KHUDYKH, Mikhail Il'ich; KATS, N.V., retsenzent; MIZERI, A.A.,  
retsenzent; SHTEYNGART, M.D., red.; SHAPENKOVA, T.A.,  
tekhn. red.

[Maintenance and repair of textile machinery] Remont tek-  
stil'nykh mashin. Izd.2., perer. 1 dop. Moskva, Ros'tekh-  
izdat, 1963. 626 p. (MIRA 16:5)  
(Textile machinery--Maintenance and repair)

MANAYEV, N.M.; KHUDYKH, M.I.

Studying the wear resistance of materials for the disks of the pressure rollers of flax spinning machines. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.4:138-142 '64.

(MIRA 17:12)

1. Kostromskoy tekhnologicheskij institut.

MARKINA, M.I.; PETROVA, N.V.; POPKOVA, L.N.; TIMOFEYEV, V.D.; KHUDYKH, M.I.

Investigating the wear of breaker rollers and the lengthening of their  
service life. Izv.vys.ucheb.zav.; tekhn.tekst.prom. no.5:34-37 '64.  
(MIRA 18:1)

1. Kostromskoy tekhnologicheskii institut.

TIMOFEYEV, V.D.; KHUDYKH, M.I.

Investigating the wear of "antifrik" plastics in connection  
with their use as substitutes for bronze in wet spinning  
machines for flax. Izv. vys. ucheb. zav.; tekhn. tekst. prom.  
no.2:155-160 '65. (MIRA 18:5)

1. Kostromskoy tekhnologicheskoy institut.

BALYSH, V.M.; KHODYKH, M.I.

Wear of thread guider materials by linen threads. Izv. vys.  
ucheb. zav.; tekhn. tekst. prom. no.4:144-150 '65. (MIRA 18:9)

1. Kostromskoy tekhnologicheskoy institut.

ROVNOV, I.F.; KHUDYKH, M.I.

Effect of moisture absorption on the hardness of anid used for the  
manufacture of ~~travelers~~. Izv. vys. ucheb. zav.; tekhn. tekst. prom.  
no.1:147-151 '65. (MIRA 18:5)

1. Kostromskoy tekhnologicheskoy institut.

BALYSH, V.M., aspirant; KHUDYKH, M.I., prof., doktor tekhn. nauk

Wear of the thread guiding parts of machines in the rewinding of  
boiled and bleached linen yarn. Tekst. prom. 25 no.12:37-40 D '65.  
(MIRA 19:1)

1. Kostromskoy tekhnologicheskoy institut.



KHODYNA, Ivan Semenovich; VERESKUNOV, V.K., red.; UCHITEL', I.Z., red.  
Izd-vo; LELYUKHIN, A.A., tekhn.red.

[Fire safety of children's, educational, and medical institutions]  
Pozharnaya bezopasnost' detskikh, uchebnykh i lechebnykh uchrezh-  
denii. Moskva, Izd-vo M-va kommun.khoz.RSFSR, 1959. 42 p.  
(MIRA 12:11)

(Public institutions--Fires and Fire prevention)

PETROV, K.A.; NIFANT'YEV, E.Ye.; SHCHEGOLEV, A.A.; KHUDYNTSEV, N.A.

Synthesis and chemical properties of phosphinites of 1,4;3,6-  
dianhydrohexitol. Zhur.ob.khim. 32 no.9:3074-3080 S '62.  
(MIRA 15:9)

(Hexitol) (Phosphinic acid)

KHUDYSHEV, A.F.

SOV/137-58-8-17175

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 139 (USSR)

AUTHORS: Gorbanskiy, V.V., Khudyshev, A.F.

TITLE: A Welding Machine Employs Rollers for Welding of Cathodes  
(Stanok dlya rolikovoy svarki katodov)

PERIODICAL: Radiotekhn. proiz-vo, 1957, Nr 9, p 22

ABSTRACT: Instead of employing spot welding for the two cathode half-sections, a method was introduced and developed whereby welding is performed by means of rollers in conjunction with a special mandrel and a machine which ensures uniform conditions for welding operations. The introduction of the method described resulted in a 10-12 fold increase in productivity and improved quality of cathodes.

A.K.

1. Cathodes--Spot welding 2. Welding machines--Design

Card 1/1

SOV-135-58-10-9/19

AUTHORS: Kislyuk, F.I., Doctor of Technical Sciences, Gorbanskiy, V.V., and Khudyshev, A.F., Engineers

TITLE: Precision Automatic Arc Welding in Hydrogen With Non-Fusing Electrodes (Pretsizionnaya avtomaticheskaya dugovaya svarka neplavyashchimsya elektrodom v srede vodoroda)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 10, pp 26-29 (USSR)

ABSTRACT: A new device for the precision welding of thin parts made of heat resistant and other metals and alloys used in the production of cathodes for electric-vacuum devices is described. The welding is done in hydrogen, with a low power arc. Engineers V. Elabakidze, V. Rastopchina and A. Kupfer participated in the work. The new device is described in detail and the approximate technology for welding on direct polarity of different parts according to their thickness and nature of joints is given in a table. In welding tungsten and molybdenum parts, micro-hardness of recrystallized molybdenum attained 210 kg/mm<sup>2</sup> and in individual grains as much as 320 kg/mm<sup>2</sup>; micro hardness of porous tungsten

Card 1/2

SOV-135-58-10-9/19

Precision Automatic Arc Welding in Hydrogen With Non-Fusing Electrodes

was equal to  $175 \text{ kg/mm}^2$  in the seam center and 200 - 300  $\text{kg/mm}^2$  in the transition zone. There are 3 graphs, 4 photos, 1 table, 1 kinematic and 1 circuit diagram.

1. Tungsten--Welding 2. Molybdenum--Welding 3. Arc welding  
---Applications 4. Hydrogen--Applications

Card 2/2

9.3/30  
1.2310

22939  
S/125/61/000/006/003/010  
D040/D112

AUTHORS: Gorbanskiy, V. V., Shubin, L. V., Khudyshev, A. F. (Moscow)

TITLE: Equipment for precision electron-beam welding of refractory metals and alloys

PERIODICAL: Avtomaticheskaya svarka, no. 6, 1961, 21-30

TEXT: The authors describe a new experimental installation developed for welding refractory metals and alloys by an electron beam in a vacuum. The article contains detailed design information. The unit is shown in a photograph (Fig. 2) and diagram (Fig. 1). It consists of an electron-optic system, i.e. an electronic gun with focusing and deflecting systems; a high-voltage rectifier; one feed unit for the focusing and deflecting system and one for the modulator, a work chamber, a mechanism rotating and moving the workpiece, an evacuating system with a high-vacuum and a forevacuum pump. The electron-optic system (Fig. 3) is attached by a flange to the work chamber. Its parts are connected by vacuum-tight joints with aluminum or copper shims. The cathode leg of the electron gun is fixed in a ceramic bulb and its output terminals connected to a heater, a lanthanum boride

Card 1/9

Equipment for precision electron-beam welding...

<sup>22939</sup>  
S/125/61/000/006/003/010  
D040/D112

cathode, and a focusing and a modulating electrode. The anode unit is a cylindrical water-cooled pipe. The cathode leg is connected to the anode unit by the flange. There are one central and six side holes in the cylinder top. Accelerated electrons move through the central hole and air is evacuated through the side holes. The electron gun is powered from the rectifier and the modulator; the feed source for the focusing and deflecting system is inside the unit; the controls are on the front panel. When the electron gun works with pulses (to obtain higher beam density and to reduce heating), the feed voltage is modulated. Pulses and intervals are adjustable in ten steps between 0.01 and 1.2 sec. The 20 cubic decimeter capacity work chamber is cylindrical, welded from stainless ~~1x18H9T~~ (1Kh18N9T) steel. Replaceable workpiece holding devices are provided for welding circular and straight seams. A vacuum of  $8 \cdot 10^{-5}$  mm Hg is maintained in the chamber. The gun system is shown in a diagram (Fig. 4). Boride cathodes are used because of their stability at high current densities (above 10 amp/cm<sup>2</sup>) and because they require no activation time. Heating to 1600°C is sufficient for steady operation of the cathode. The work life of most of the boride cathodes is 250-300 hours. The replaceable lanthanum boride cathodes have active surface diameters of 3.0, 4.2 and 5.4 mm. A tungsten wire

Card 2/9

Equipment for precision electron-beam welding... <sup>22933</sup> S/125/61/000/006/003/010  
DO40/D112

spiral is used for heating the cathodes. Three different electron guns are designed for cathodes of different diameters. Power can be varied over a wide range. Practically all refractory metals with a thickness of 0.005 to 5 mm can be welded. The distance from the anode outlet to work surface is 340 mm, because of the size of the work chamber. The focusing system is a magnetic lens, i.e. a rectangular coil, a portion of which is placed in an iron screen. The electron beam passes for a considerable part of its passage in the equipotential space of the anode pipe. The external electric and magnetic fields have no effect on it, therefore calculation of the focussing system may be simplified by assuming that only the forces repelling the space charge are acting, and that the magnetic lens is "short". The spread of the electron beam may be calculated by the Mayns - Watson (Russian spelling) equation

$$\frac{l_1}{r_0} = \left( \frac{l}{2m} \right)^{\frac{1}{4}} \frac{v}{j^{\frac{1}{2}}} 2 \int_0^{\sqrt{1n \frac{R}{r_0}}} l x^2 dx = 1.021 \frac{v^{\frac{1}{2}} (R_0)}{j^{\frac{1}{2}} (R_0)} F \frac{R}{r_0}, (1)$$

Card 3/9

X



Equipment for precision electron-beam welding... S/125/61/000/006/003/010  
D040/D112

where  $e$  and  $m$  are the charge and the mass of electron;  $I$  - the beam current;  $v$  - the anode tube potential (in respect to the cathode). The equation (1) describes directly the initial parallel beam shape. In the magnetic lens the beam converges (Fig. 7). The article includes a calculation example. It is very approximate, and the basic dimensions for the focussing system were determined finally in experiments. The best position for the magnetic lens was found to be  $l_1 = 120$  mm and  $l_2 = 220$  mm (Fig. 7), and the proper current for focussing a 150 m-amp beam at 15,000 volt to be 1000 - 1050 v-amp. The deflecting system is the same as used for TV tubes and consists of four coils connected by pairs in series and at an  $180^\circ$  angle. The coils are wound on special arbors and consist of 5 sections, with maximum winding density at the coil end to produce a uniform magnetic field. The formula for calculating the ampere-turns of coils (Ref. 13: M. Ya. Mulyarov, Elektronno-luchevyye pribory [Electron-beam instruments], Gosenergoizdat, 1954 is

$$I_{\text{IN}} = \frac{2.65 d_{\text{int}} \sin \theta \sqrt{U_a [\text{V}]}}{10}$$

Card 4/9

22939

Equipment for precision electron-beam welding... S/125/61/000/006/003/010  
D040/D112

where  $d_{int}$  - is the internal diameter of deflecting system;  $l_0$  - the effective coil length ( $l_0 = l + 10\%l$ );  $l$  - the coil length;  $\delta$  - the maximum deflection angle. The undistorted deflection angle determined in experiments was  $3-5^\circ$ , which means that the beam may be deflected 10-15 mm off center without changing the focus. Further work is in progress on determination of beam pressure on a metal pool, during welding and heat distribution in the metal outside the weld. Conclusions. 1) The system with replaceable cathodes permits welding-current regulation between 100 w and 10 kw. 2) The high-voltage rectifier and modulator permit pulse welding. 3) The experimental unit makes possible the welding of circular and straight seams by an electron beam in a vacuum. 4) Vacuum-tight joints can be obtained on refractory metals. There are 10 figures and 13 references: 5 Soviet-bloc and 6 non-Soviet bloc. The four latest references to English-language publications read as follows: G. Burton and Wm. L. Frankhouser, Electron-beam Welding, "Welding Journal", No. 10, 38, 1959, S.401-409; Production Welding with Electrons, "Electronic Industries", April, pp 76-94, 1959; Electron-beam Welding, "American Machinist", February, 23, pp 94-98, 1959; Electron-beam Welding, "Engineering", April 1959.

SUBMITTED: December 7, 1960  
Card 5/9

33552

S/135/62/000/002/008/010

A006/A101

12300 1573

AUTHORS: Balkovets, D. S., Doctor of Technical Sciences, Kaganov, L. N.,  
Khudyshev, A. F., Engineers

TITLE: The effect of the welding-speed on ductility of weld joints in some  
refractory alloys

PERIODICAL: Svarochnoye proizvodstvo, no. 2, 1962, 31-32

TEXT: It was assumed that ductility of weld joints could be raised by  
eliminating brittle structure components at grain boundaries, with the aid of  
high speed welding, predetermining least values of linear energy and a short-  
term effect of the thermal cycle. To check this assumption, weld joints were  
produced by roller and electron-beam welding. Molybdenum alloy plates, 1 + 1 mm  
thick, containing about 0.25% Zr and 0.25% Ti, were roller welded at 36 m/hour,  
0.16 sec pulse duration, and 0.44 sec time interval between the pulses. Specimens  
so welded could be bent up to 180°. This high ductility is explained by  
the short-time effect of the thermal-cycle. The effect of the welding speed  
was tested on 0.5 and 1 mm thick plates, electron-beam welded at various speeds.  
At 9 m/hr welding speed the bend angle was close to zero at room test temperature.

Card (1/2)

33552

S/135/62/000/002/008/010

A006/A101

The effect of the welding-speed ...

at 63 m/h it was  $40^{\circ}$  at room temperature, and  $70 - 73^{\circ}$  at  $80^{\circ}\text{C}$ . Electron-beam welding was also performed with a tungsten arc in an argon-blast chamber. Plates 0.5 mm thick, were welded at 225 and 370 m/h. The bend angles were  $180^{\circ}$  at  $80 - 90^{\circ}\text{C}$  temperatures. The favorable effect of high welding speeds was also revealed in argon arc welding of low-alloy niobium base alloys containing about 4% molybdenum. The tests have shown that high-speed welding under the aforementioned conditions raised considerably the ductility of welds in refractory niobium- and molybdenum-base alloys. This should be taken into account when developing equipment for welding refractory alloys. There are 5 figures and 1 table. X

Card 2/2

05859

S/125/62/006/005/007/010  
DC40/D113

1.2200

AUTHORS: Afanas'yev, I.V. and Khudyshev, A.F. (Moscow)

TITLE: Investigation of diffusion welding in application for electronic instruments

PERIODICAL: Avtomaticheskaya svarka, no. 5, 1962, 57-63

TEXT: Two units for vacuum diffusion welding metal and metalloceramic parts of electric vacuum devices are described. Pressure is exerted by a hydraulic press on which the welding chamber is mounted, and is applied to the weldments by a rod in the vacuum chamber connected to the top chamber cover by a bellows joint. One unit accommodates weldments up to 40 mm in diameter and 100 mm in height, the other up to 150 mm in diameter and 200 mm in height. The 2 units have cylindrical quartz and cylindrical steel vacuum chambers respectively, with induction heaters on the outside (unit 1) or inside (unit 2), the chambers being mounted on 4 and 10 t hydraulic presses respectively. The heaters are supplied with h-f current from generators of 8 and 20 kw capacity. The weldment temperature is measured by thermocouples, and the pressure by dynamometers. Chamber evacuation

Card 1/2

S/125/62/000/005/007/010  
D040/D113

Investigation of diffusion welding .....

takes 10-12 min, and the actual welding process 15-20 min, after which the heating is stopped but the pressure held until the weldment cools to the proper temperature, i.e. 150° and 80°C in the case of ferrous and nonferrous metals respectively. Cooling is carried out by water feed into the holding clamps (unit 1) or into a copper "power concentrator" placed inside the induction heater (unit 2). Operation details, photographs and schematics of the welding units are included. Welding technology has been developed for joining МБ (MB) copper with MB copper, kovar with kovar, nickel with steel 10, armco iron with steel 10, and molybdenum with ЭИ437Б (EI437B), and is now being developed for different nonferrous metals that cannot be welded together by any other welding or brazing process. Industrial program-controlled equipment for the new technology has yet to be designed. There are 7 figures.

SUBMITTED: June 24, 1961

Card 2/2

S/125/62/000/006/011/013  
D040/D113

/ 2300

AUTHORS: Kosichkin, N.V., Khudyshev, A.F., and Elbakidze, V.G. (Moscow)

TITLE: New equipment for precision gas-shielded arc welding

PERIODICAL: Avtomaticheskaya svarka, no. 6, 1962, 77-80

TEXT: The described welding arrangement, shown in a photograph, is designed for welding vacuum-tight joints in electronic instruments, for welding porous nickel, molybdenum or tungsten parts, and for coating porous tungsten with molybdenum by spraying. The major units are an A304-09 (A304-09) welder under a hood; an A622-75 (A622-75) rectifier giving 3.5-18 or 1-18 amp current and approximately 300 or 100 v for welding in hydrogen or in argon; a unit for purifying hydrogen. The system includes a spindle and a six-spindle head, an electric motor drive, electromagnetic cranes, rectifiers for the motor and the cranes, an oscillator, a mechanism lifting and lowering the hood and the work holding clamps. The controls and measuring instruments are placed on 3 panels and include signalling devices and handles for controlling the electrode motion, and changing the spindle speed and the turn of the spindle head. Parts as thin

Card 1/2

S/125/62/000/006/011/013  
D040/D113

New equipment for precision gas-shielded arc welding

as 0.05-0.1 mm and parts with soldered joints with glass or ceramic can be welded in spots close to the solder joint. Porous tungsten or molybdenum can be preheated with a spiral tungsten heater. The welding hood has to be evacuated before filling it with gas, or blown through with nitrogen. Guards are provided in case the air-hydrogen mixture explodes and in order to prevent flames from penetrating the hood. The space in the hood above the spindle face plate measures 160 x 220 mm. Diagrams show the permissible increase of the arc gap and the dependence of the low-power arc on the gap width between the electrodes. Welding technology has been developed for tungsten arc welding of refractory and nonferrous metals used in electronics. There are 4 figures. ✓C

SUBMITTED: June 15, 1961

Card 2/2



AFANAS'YEV, I.V. (Moskva); KHUDYSHEV, A.F. (Moskva)

Investigating diffusion welding as applicable to electron tube  
devices. Avtom.svar. 15 no.5:57-63 My '62. (MIRA 15:4)  
(Electron tubes--Welding)

BALKOVETS, D.S., doktor tekhn.nauk; KAGANOV, L.N., inzh.; KHUDYSHEV, A.F.

Effect of the speed of welding on the plasticity of weld joints  
in certain high-melting alloys. Svar. proizv. no.2:31-32 F '62.  
(MIRA 15:2)

(Welding—Speed)  
(Alloys—Welding)

S/135/63/000/004/008/012  
A006/A101

AUTHORS: Afanas'yev, I. V., Kosichkin, N. V., Khudyshev, A. F.,  
Elbakidze, V. G., Engineers

TITLE: Diffusion welding in a vacuum and in controlled atmosphere

PERIODICAL: Svarochnoye proizvodstvo, no. 4, 1963, 28 - 29

TEXT: A description is given of a unit for diffusion welding of metal and sinters in a vacuum and controlled atmosphere. The unit includes electric equipment, a vacuum system, a hydraulic system, and a cooling system. The hydraulic system secures forces required for the compression of the welded parts, and smooth pressure control in two stages (50 - 100 kg and 1,000 - 10,000 kg pressure). A smooth control of the pressure in the hydraulic system (6 - 65 atm) is performed with the aid of a "pressure control" lever. The air in the vacuum chamber is evacuated by a forevacuum and vapor-oil pump. The unit includes a device for the filling of the operational chamber with hydrogen. The cooling system is intended to secure the normal operation of the vapor-oil pump and the cooling of the inductor. Optimum conditions are given for welding titanium with titanium, titanium with

Card 1/3

Diffusion welding in a vacuum and in...

S/135/63/000/004/008/012  
AO06/A101

copper MB(MB); AMu(AMts) alloy with AMts alloy, nickel with nickel, MB copper with AMts alloy, "covar" with MB copper; MB copper with MB copper, and covar with covar. It was found that the quality of diffusion welding is considerably affected by clean machining and the preparation of the surfaces. Good results are obtained if the surfaces of the parts are machined with a cutter to  $\nabla 7$  roughness. Prior to welding the parts should be subjected to surface etching with subsequent washing in alcohol or chemically pure acetone. The method was used in welding electronic device parts. There are 5 figures and 1 table.

Card 2/3

S/135/63/000/004/008/012  
A006/A101

Diffusion welding in a vacuum and in...

Table

Designation of materials	W e l d i n g   c o n d i t i o n s		
	t in °C:	P in kg/mm <sup>2</sup> :	T in min
BT 1 (VT1) + MB copper	850	0,5	15
VT1 + VT1	800	0,7	6
AMts + AMts	590	0,5	20
Ni + Ni	1000	1,5	10
MB copper + AMts alloy	510	0,7	15
H 29 K18 (N29K18) + + MB copper	950	0,7	10
MB copper + MB copper	850	0,7	20
N29K18 alloy + N29K18 alloy	1100	2,0	25

Card 3/3

KHUDYSHEV, Anatoliy Fedorovich; KAZAKOV, N.F., red.

[Diffusion bonding in vacuum of parts and weldments of  
electric vacuum equipment] Diffuzionnaia svarka v vakuume  
detalei i uzlov elektrovakuumnykh priborov. Leningrad,  
1965. 20 p. (MIRA 18:5)

KHUDYY, V.B.; TARAKANOV, I.A.

In an underground city. Zdorov'ie 6 no.5:25 My '60.

(MIRA 13:6)

(MOSCOW--SUBWAYS--HYGIENIC ASPECTS)

KHUDYY, Yu. B., and GOLUBEVA, I.

The following is the complete text of an article titled "Electro-  
narcosis," by Yu. Khudyy, Ye. Gurova, and I. Golubeva.

*NAUKA I ZHIZN'* 23, No. 7 p. 63 1956.

"Anesthesia is a state of artificial sleep induced by the action of so-called anesthetic agents on the central nervous system. During the state of anesthesia, consciousness is absent and perception of pain sensations and other irritations is lost, thus affording the possibility of conducting surgical operations completely painlessly. However, anesthetic agents, which are well-known in medicine, such as ether, chloroform, and nitrous oxide, and which have good anesthetic action, also have a number of shortcomings, i.e., toxicity, difficulty in regulating dosage, and slow elimination from the organism. In the search for new, more perfect methods of anesthesia, scientists have hit on the idea of using electronarcosis. Earlier electroanesthesia was usually achieved by using a pure pulse current with a frequency of 100 cycles per second. However, due to the lack of a perfected apparatus, it sometimes caused respiratory disturbance, convulsions, and other unpleasant reactions.

*Sci Res Inst. Exptl. Surgical Apparatus & Instruments  
Min Health, USSR*



"The new apparatus for electonarcosis, invented at the Scientific Research Institute of Experimental Surgical Apparatus and Instruments (Moscow), is free from all these shortcomings. As numerous experiments have shown, a specified combination of pulse current has the best anesthetic effect. Differing from previous methods, animals are connected not to the anode, but to the cathode circuit of the output tube, which ensures the stability of the voltage supplied. Double automatic protection of the animal against an overdose of current is assured, thus guaranteeing the safety of those on whom the apparatus is used.

"The advantages of electonarcosis are indisputable: although during drug-induced sleep it is necessary to watch closely the dose of the anesthetic being administered, taking into account the individual peculiarities of the patient, electonarcosis, even with very large doses of current, is safe. No less important is the fact that the current can be shut off and anesthesia discontinued at any time the physician feels it necessary.

"Co-workers of the institute have already conducted dozens of experiments with electonarcosis on animals (dogs), i.e., they dissected soft tissues carried out amputations, and performed operations on organs of the abdominal cavity. The general condition of the animals, after such operations, was always good: they jumped off the operating table by themselves, and drank and ate willingly, whereas, after drug-induced sleep the animal usually remained under the influence of the anesthetic for a long time.

"The apparatus and method of conducting electronarcosis developed by the institute, therefore, make it possible to anesthetize tissues to a degree sufficient for major surgical operations and ensure a good condition of the animal in the postoperative period.

"The method of electronarcosis is still in the experimental research stage, but the time is near when it will enter into surgical practice and provide for still wider development and advancement of medical science."  
(Nauka i Zhizn', Vol 23, No 11, Nov 56, p 63)

Sum 1239

Khudyi, Yu. B.

"Apparatus 'Elektroson' (Electrosleep)," by Yu. B. Khudyi, Scientific Research Institute of Experimental Surgical Apparatus and Instruments, Meditsinskaya Promyshlennost' SSSR, No 1, Jan 57, pp 55-57 ✓

The author describes an apparatus for "electrosleep" therapy developed at the Scientific Research Institute of Experimental Surgical Apparatus and instruments of the Ministry of Health USSR. Sleep is achieved by the action of an electrical current on the nerve cells of the brain. A two-channel apparatus of the above type will be manufactured by the "Ema" plant this year. (U)

1374

KHUDYI, Yu. B., GUROVA, E. V., GOLUBEVA, I. V., LEVITSKAYA, L. A.,  
KASHCHEVSKAYA, L. A., KONDRAT'EVA, N. I., AMAN'YEV, E. G.

Electrosleep and electronarcosis .... 129

Noye khirurgicheskie apparaty i instrumenty i opyt ikh primeneniye (New  
SURGICAL Equipment and Instruments and Experience in Their Use) NO. 1,  
Moscow, 1957 A collection of Papers of the Scientific Research Inst.  
for Experimental Surgical Equipment and Instruments.

*NITEKH A. I.*

KHODYA, Yu. B.

v

ANAN'YEV, M.G.; GOLUBEVA, I.V.; GUROVA, Ye.V.; KASHCHEVSKAYA, L.A.;  
LEVITSKAYA, L.A.; KHODYA, Yu.B.

Preliminary data on experimental electronarcosis induced with an  
apparatus developed by the Research Institute for Experimental  
Surgical Apparatus and Instruments [with summary in English].  
Eksper.khir. 2 no.4:3-7 J1-Ag '57. (MIRA 10:11)

1. Iz Nauchno-issledovatel'skogo instituta eksperimental'noy  
khirurgicheskoy apparatury i instrumentov (dir. M.G.Anan'yev)  
Ministerstva zdravookhraneniya SSSR.  
(ELECTRONARCOSIS, exper.  
induction with special appar.)

Danielson, A. K., Kovaleva, L. I., Mushegyan, S. A., and Khudyi Yu. B.

"A NIIEKhai defibrillator with universal electrical supply  
and the experience gained in its experimental application." Novye  
khirurgicheskie apparaty i instrumenty i opyt ikh primeneniya.  
No. 2, 1958, p. 72

SOV/25-58-12-40/40

AUTHORS: Perovskiy, S., (Leningrad); Khudyy, Yu., Engineer;  
Grishin, M., Candidate of Military Sciences,  
Docent

TITLE: Readers Write to Us (Nam pishut)

PERIODICAL: Nauka i zhizn', 1958, Nr 12, pp 75-77 (USSR)

ABSTRACT: USSR:  
1) Perovskiy, of the Otdel Ornitologii zoologich-  
eskogo institut AN SSSR (The Ornithology Depart-  
ment of the Zoologic Institute of AS USSR) de-  
scribes the imperial penguins and their breeding  
habits.

2) Engineer, Khudyy, Yu. of the Nauchno-issledo-  
vatel'skiy institut khirurgicheskoy apparatury i  
instrumentov, Moskva (The Scientific-Research In-  
stitute of Surgical Equipment and Instruments,  
Moscow), describes a new electric surgical knife.

Card 1/2

Readers Write to Us

SOV/25-58-12-40/40

3) Grishin, M. of the Rostovskoye otdeleniye Obshchestva po rasprostraneniyu politicheskikh nauchnykh znaniy (The Rostov Branch of the Society for Propagation of Political and Scientific Knowledge) recommends that the broadcasting of the music in passenger trains be replaced by records describing localities through which the trains pass them.

Card 2/2

USCOMM-DC-60,718



KHUDYY, Yu.B.; BULANOV, V.A.; GOLUBEVA, I.V.

Instruments for use with the "Electroknife" apparatus. Med.prom. 13  
no.11:53-54 N '59. (MIRA 13:3)

1. Nauchno-issledovatel'skiy institut eksperimental'noy khirurgi-  
cheskoy apparatury i instrumentov.

(ELECTROSURGERY--APPARATUS AND INSTRUMENTS)

KHUDYY, Yu.B.; BULANOV, V.A.

Surgical rectoscope. Med. prom. 16 no.2:58-61 F '62.

(MIRA 15:3)

1. Nauchno-issledovatel'skiy institut eksperimental'nyy  
khirurgicheskoy apparatury i instrumentov.

(PROCTOLOGY--EQUIPMENT AND SUPPLIES)

KHUDZHANIYAZOVA, S.

Data on the biology of the flowering of ornamental rudbeckias  
in Tashkent. Vop.biol.i kraev.med. no.3:51-58 '62.

(MIRA 16:3)

(TASHKENT—CONEFLOWER) (PLANTS, FLOWERING OF)

S/137/62/000/001/103/237  
A052/A101

AUTHOR: Khudzik, G. Ye.

TITLE: Improved welding technology

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 20, abstract 1E108  
(V sb. "Vopr. vnedreniya v proiz-vo peredovoy tekhnol., uluchsheniya  
kachestva vypuskayemoy produktsii i snizheniyayee sebestoimosti".  
Kiyev, AN UkrSSR, 1959, 31)

TEXT: The experience made at the "Leninskaya kuznitsa" plant on the semi-automatic welding with ПШ-5 (PSh-5) machine is described. With this semiautomatic machine all assemblies are welded at the plant, leaving to the manual arc welding only the welding-on of the deck from inside and the welding in hard-to-reach places. It is pointed out that an important shortcoming in the introduction of semiautomatic welding is the absence of spare parts, which leads to idle times.

V. Klyuchnikova

[Abstracter's note: Complete translation]

Card 1/1

KHUDZIK, L.B.

Streptomycin and its effect on the blood coagulation system. Farm.i  
toks. 29 no.3:336-340 My-Je '65. (MIRA 18:8)

1. Kafedra normal'noy fiziologii (zav. - prof. S.A.Georgieva)  
Saratovskogo meditsinskogo instituta.

KHUDZIKEVICH, R.; KUKULA, T.; KUBIN'SKI, S.

Recuperators mounted in a cupola furnace smoke stack. Lit.  
proizv. no.10:20-21 0 '62. (MIRA 15:10)

(Cupola furnaces) (Heat regenerators)

REIKH, V.N.; KALAUS, A.Ye.; BOGUSLAVSKIY, D.B.; OPALEV, A.I.; DUBOVIK, L.I.  
BORODUSHKINA, Kh.N.; FEDOROVA, Yu.I; Prinimali uchastiye: PAVLIKOVA, A.;  
KHUDZINSKAYA, L.L.

Triple copolymers of butadiene, styrene, and 2-methyl-t-vinylpyridine.  
Kauch.i rez. 20 no.3:2-8 Mr '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo  
kauchuka im. S. V. Lebedeva i Yaroslavskiy shinnyy zavod.  
(Rubber, Synthetic) (Butadiene) (Pyridine)

YEPINAT'YEVA, A.M.; KUZNETSOV, V.V.; OSTROVSKIY, Yu.A.; KHUDZINSKIY, L.L.

Some experimental data on the form of impulses emitted in  
explosions in holes. Izv. AN SSSR. Ser. geofiz. no.6:861-875  
Je '63. (MIRA 16:7)

1. Institut fiziki Zemli AN SSSR.  
(Seismic waves) (Blasting)



KHUDZINSKIY, L.L.

Broad-band seismic stations. Izv. AN SSSR. Ser. geofiz. no.2:  
239-246 F '64. (MIRA 17:3)

1. Institut fiziki Zemli AN SSSR.

ASHIMOV, M.A.; KHUDZHATOVA, R.Kh.

Modern synthetic cleaning compounds. Azerb.khim.zhur. no.6:69-75  
'60. (MIRA 14:8)

(Cleaning compounds)

KHUDZIK, L.B.

Effect of saluzide on the animal organism. Probl. tub. 42 no.3:  
77-79 '64. (MIRA 18:1)

1. Kafedra normal'noy fiziologii (zav. - prof. S.A.Georgiyeva)  
Saratovskogo meditsinskogo instituta.

*Khudzinskiy, L. L.*

AUTHORS: Khudzinskiy, L. L. and Melamud, A. Ya. 49-9-2/13

TITLE: Station for frequency analysis of seismic oscillations.  
(Stantsiya chastotnogo analiza seysmicheskikh kolebaniy).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya,  
1957, No.9, pp.1099-1117 + 2 plates (USSR)

ABSTRACT: In November, 1953 the seismic prospecting division of the Geophysics Institute, Ac.Sc. (Geofizicheskiy Institut AN SSSR) started developing apparatus for frequency analysis of seismic waves under field conditions; this work was completed two years later and the thus produced station for frequency analysis was tested under field conditions in 1955. The results were described at an All Union conference of geophysicists of the Ministry of the Oil Industry (Ministerstvo Neftyanoy Promyshlennosti SSSR) in November, 1955 during which it was recommended that this apparatus should be subjected to industrial tests. In this paper the above mentioned apparatus is described and also the results of some field tests obtained with this apparatus. Problems relating to the methods and accuracy of frequency analysis are dealt with, emphasizing that successive analysis under impulse conditions has the advantage against simultaneous and successive analysis under harmonic

Card 1/3

Abdenniyev, M.K. USSR. Institut fiziki zemli	107/1560
Seymicheskaya razvedka (Seismic Prospecting) Moscow, Izd-vo AN SSSR, 1959. 576 p. (Series: <u>Iz: Trudy, No. 6 /172/</u> ) Errata slip inserted. 1,500 copies printed.	
Ed.: I.S. Besson, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: L.I. Mikhlin; Tech. Ed.: V.V. Volnova.	
FOREWORD: The publication is intended for geologists and geophysicists, particularly for those interested in the study of seismic waves and their use in geological prospecting.	
CONTENTS: This is a collection of 17 articles published by the Academy of Sciences USSR as translations of the Institute of Physics of the Earth. The first four articles present mainly an analysis of empirical properties of waves. The second group of four articles deals with problems of frequency analysis of seismic waves. The remaining articles cover a wide field of problems in seismology such as methods of interpretation of dynamic properties of waves, observation of reflected longitudinal waves, design of high-frequency seismic instruments, etc. References are given at the end of each article.	
Yefimatyeva, A.M. Some Results of the Analysis of Formulas for the Amplitudes of Reflected Waves	7
Vasil'nev, B.I. Some Conclusions from the Analysis of Coefficients of Reflection and Refraction of Elastic Waves	52
Starobuhovetskiy, S.P. Methods of Approximate Computation of Theoretical Seismograms of Waves Generated in Thin-Layered Media	81
Besson, I.S. Change with Distance in the Amplitude of Waves Deflected from a Thin Layer	107
Isayev, I.S. Dependence of the Predominant Frequency of Pulse Vibration Spectrum on the Number of Visible Pulse Periods	114
Rudakovskiy, L.I. Frequency Analysis in the Zone of Interference of Seismic Waves	120
Isayev, V.B. Changes of Wave Spectra in Grouping the Seismographs	136
Besson, I.S. Determining the Spectrum of the Coefficient of Reflection of Longitudinal Waves from a Thin Layer	163
Ratv., Khizgiya, M.I. Averaging the Observational Data for Plotting the Changes in Seismic Wave Amplitude With the Change in Distance on Grapes	187
Isanov, I.G. Experimental Data on the Effect of the Layer in the Upper Part of the Cross-Section on the Initial Angle of Waves of Various Frequency	194
Besson, I.S. Some Problems in Interpreting the Seismographs of Reflected Exchange Waves	213
Kolobova, L.V. Recording the Depth Reflections in Seismic Prospecting	237
Batukova, L.I. Surface Wave Records Near the Source	253
Paripchayev, G.M. Investigation of the Surface of a Vertically-Layered Medium with Complex Relief by Means of a System of Longitudinal Seismic Profiles	283
Botanenko, L.I. Problems of the Control of Sensitivity in Channels Recording Seismic Vibrations	300
Melamed, A.Ye. and N.B. Shipilin. High-Frequency Seismic Instruments	336
Sorokhtin, O.G. Multichannel Supersonic Pulse Seismoscope	354
AVAILABLE: Library of Congress	1/2

SOV/49-59-2-4/25

AUTHORS: Melamud, A. Ya., Khudzinskiy, L. L., Daynaga, S. A.

TITLE: Station of Intermediate Magnetic Recording of Seismic Waves  
(Stantsiya promezhutochnoy magnitnoy zapisi seysmicheskikh kolebaniy)

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya geofizicheskaya,  
1959, Nr 2, pp 197-209 and 4 plates (USSR)

ABSTRACT: A detailed project of a station for the intermediate recording of seismic waves on a magnetic wave recorder is described. The main divisions of such a station are:  
1) 9-channel magnetic recorders and reproducers, 2) the apparatus for filtering, 3) the points of frequency analysis of seismic waves, 4) the general control and the power pack (accumulators, dry batteries and a generator of total power 300 W). Fig 1 represents a general layout of the station where I - tape recorder, II - device for printing and recording the time, III - oscillograph for frequency analysis points, A - seismographs, D - amplifiers of the seismic (bottom) and magnetic (top) recordings; V - amplifiers of reproducers. The detailed plan of the station

Card 1/3

SOV/49-59-2-4/25

Station of Intermediate Magnetic Recording of Seismic Waves

is shown in Fig 2, where A - seismograph, F - amplifier of magnetic recording (Fig 3 shows its frequency and voltage), V - multi-channel type recorder, G - reproduction amplifier, D - seismic amplifier, Ye. - seismic oscillograph, Z<sub>1</sub> and Z<sub>2</sub> - circuits for indexing and printing the seismograms. The characteristic frequencies of the station are shown in Fig 4a and Fig 4b (A - low frequency filtration, B - high frequency filtration). The numbers 1, 2, 3 denote the frequency characteristics of the: I - register: reproduction track, 2 - seismic amplification, III - intermediate magnetic recording. The experimental station was employed in 1957 by the expedition of the Institute of Physics of the Earth, Academy of Sciences USSR, in their investigations on the nature and dynamical properties of the multiple reflected waves. The fidelity of the magnetic recordings was excellent, which can be seen in Fig 5, showing the 9 tracks: a - seismogram - reproduction, and b - magnetic recording. The effect of the channels on each other was negligible (Fig.6). The identity of the recordings is further shown in Fig 7, where 2 pairs (a and b) of the original seismograms and the reproductions from the tape recorder are shown. Figs 8 and 9 give some examples of the results obtained by means of the

Card 2/3

SOV/49-59-2-4/25

Station of Intermediate Magnetic Recording of Seismic Waves

magnetic recordings. The station was able to register the seismic waves from 20 to 500 h, i.e. it could be employed in the low, medium and high frequency seismic prospecting. The apparatus described does not introduce any distortion; therefore it can be used for the determination of the dynamical characteristics of seismic waves. There are 9 figures and 35 references; 17 of the references are Soviet, 15 are English, 2 Italian.

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki Zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: February 5, 1958.

Card 3/3



KHUDZINSKIY, L.L.

Determining certain parameters for layers of intermediate thickness from reflected wave spectra. Izv.AN SSSR.Ser.geofiz. no.5:676-684  
My '61. (MIRA 14:4)

1. Akademiya nauk SSSR, Institut fiziki Zemli.  
(Seismic prospecting)

S/049/61/000/005/005/013  
D218/D306

AUTHOR: Khudzinskiy, L. L.

TITLE: On determining certain parameters of medium-thickness layers from the spectra of reflected waves

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geofizicheskaya, no. 5, 1961, 676-684

TEXT: A description is given of a method which can be used to determine the thickness of a layer (when the velocity of propagation in the layer is known) or the velocity of propagation in the layer (when its thickness is known). The wave reflected from a plane-parallel layer is looked upon as the superposition of waves reflected from the top and bottom faces of the layer. A simple two-ray interference calculation is used to show that the spectrum of the reflected waves exhibits minima at regular frequency intervals (destructive interference). For a given velocity of propagation, a plot of the "order" of these minima as a function of the corresponding frequency gives a straight line, whose slope is

Card 1/2

On determining certain ...

S/049/61/000/005/005/013  
D218/D306

equal to the delay between the rays from the top and bottom faces, and, therefore, determines the thickness of the layer (assuming that the velocity of propagation and the angle of incidence are known). The method has been tested experimentally (a number of examples are reproduced). It was found that by using wideband detection apparatus it was possible to measure layer thicknesses between 20-40 m and 75 - 150 m (velocities in the layer between 3000 and 6000 m/sec; depth of layer below surface 1 - 2 km). A more detailed investigation of the method is said to be desirable. There are 14 figures and 8 Soviet-bloc references. ✓

ASSOCIATION: Akademiya nauk SSSR, Institut fiziki zemli (Academy of Sciences USSR, Institute of Physics of the Earth)

SUBMITTED: October 24, 1960

Card 2/2

KHUDZINSKIY, L.L.

Determination of some spectral characteristics of layered media.  
Izv. AN SSSR. Ser. geofiz. no.3:281-297 Mr '62. (MIRA 15:2)

1. AN SSSR, Institut fiziki Zemli.  
(Seismic prospecting)

~~E 10741-63~~ ~~BDS/ENT(1)-AFFIC/ESD-3-TV~~  
ACCESSION NR: AP3002027 S/0049/63/000/006/0861/0875

AUTHOR: Yepinat'yeva, A. M.; Kuznetsov, V. V.; Ostrovskiy, Yu. A.;  
Khudzinskiy, L. L. 57  
56

TITLE: Some experimental data on the shape of pulses excited by explosions in boreholes

SOURCE: AN SSSR. Izv. Ser. geofizicheskaya, no. 6, 1963, 861-875

TOPIC TAGS: borehole explosions, seismic-pulse shapes, seismic-pulse propagation

ABSTRACT: Experimental data have been obtained on the shape of seismic pulses excited by explosions in boreholes. Only the region of elastic deformation was investigated. Near the source, pulse shape changes sharply with distance; at a distance close to 0.75 of the apparent wavelength, the pulse shape becomes established, and there is little change during subsequent pulse propagation. The pulse is brief and its apparent half-periods increase from

Card 1/2

E 10741-63

ACCESSION NR: AP3002027

the beginning of the pulse to the end. For distances up to 5 km the lengthening of the pulse is minor and is expressed in an increase in the apparent pulse half-periods. With an increase in the size of the charge the pulse assumes a lower frequency. Changes in the pulse frequency spectrum are sharper for small charges than for large ones. Orig. art. has: 14 figures and 4 tables.

ASSOCIATION: Institut fiziki Zemli AN SSSR (Institute of Physics of the Earth AN SSSR)

SUBMITTED: 30Jul62      DATE ACQ: 16Jul63      ENCL: 00

SUB CODE: 00      NO REF SOV: 007      OTHER: 009

Card

2/2

ACCESSION NR: AP4023375

S/0049/64/000/002/0239/0246

AUTHOR: Khudzinskiy, L. L.

TITLE: A wide band seismic station

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 2, 1964, 239-246

TOPIC TAGS: seismic wave, seismic station, wide band seismic station, filtered record, filtering system, seismic record, reflected wave, dynamic characteristic, resolving power

ABSTRACT: One means of distinguishing a useful signal against a background of noise is to make a frequency selection of the recorded wave. The poorer the signal/noise ratio, the greater the degree of filtering generally required; however, this normally impairs the resolving power of the instrument. Furthermore, some of the information inherent in the wave is unavoidably lost. Therefore, the IFZ AN SSSR (Institute of Physics of the Earth /IN SSSR) has designed an instrument to eliminate filtering devices and to secure sufficient sensitivity to allow spectral analysis of the seismic waves. The following criteria were employed: 1) uniform amplitude and phase frequency characteristics for recording displacement, velocity, and acceleration of the ground in the frequency range of 5-10 to 150-200 cps; 2) Card 1/3

ACCESSION NR: AP4023375

a dynamic range of at least 80 decibels by using a multistage regulator for the amplifier; 3) lowest possible nonlinear distortion (the upper limit at maximum signal taken as 2%); 4) possible suppression of low-frequency waves of large amplitude; and 5) simplified means of stabilizing operation and economy of electrical power supply. The chief difference from conventional instruments is the amplification system, which has two characteristic features distinguishing it from normal amplifiers in seismic setups: the lack of input and output transformers and a built-in integrating and differentiating filter circuit. Instruments with the above characteristics have been tested for many years in various regions by the Institute of Physics of the Earth AN SSSR. It has been found that: 1) in regions with low noise level, the use of this instrument permits one to obtain records perfectly suitable for interpretation (on these records the differences in dynamic characteristics of the waves are more clearly seen than on records obtained by filtering devices); 2) in media with thin layers the use of a wide-band device secures more highly resolved records of reflected waves than are obtained from a medium-frequency filtering device; and 3) the use of a wide-band recording device permits one to make spectral analysis of seismic waves through a wide frequency range and with greater accuracy than is possible with the use of a filtering device. Orig. art. has: 9 figures.

Card 2/3



ACCESSION NR: AP4023375

ASSOCIATION: Akademiya nauk SSSR Institut fiziki Zemli (Academy of Sciences SSSR,  
Institute of Physics of the Earth)

SUBMITTED: 22Apr63

DATE ACQ: 27Mar64

ENCL: 00

SUB CODE: AS

NO REF SOV: 005

OTHER: 000

Card 3/3

L 15196-66 EWT(1)/EWA(h) GS/CM

ACC NR: AT6001139

SOURCE CODE: UR/0000/65/000/000/0065/0070

AUTHOR: Khudzinskiy, L. L.

ORG: none

TITLE: Frequency phase analysis of seismic waves

SOURCE: AN SSSR. Sovet po seysmologii. Dinamika zemnoy kory (Dynamics of the earth's crust). Moscow, Izd-vo "Nauka", 1965, 65-70

TOPIC TAGS: seismic wave, spectrum analysis

ABSTRACT: An attempt was made to represent a complex spectrum in such a way that the form of the spectral curves would remain unchanged with a changing reference point. Although the frequency analysis of seismic waves facilitates the solution of many problems connected with the use of dynamic characteristics of these waves, in many cases data on the frequency spectra are insufficient. When the time reference point changes, the form of the phase spectrum also changes, and the determination of the spectral characteristic associated with the nature of the vibration becomes difficult. A convenient method of representing complex spectra is the separate repre-

Card 1/2

L 15196-66

ACC NR: AT6001139

resentation of the modulus and argument of the spectrum. If the argument is expressed in units of time, the shape of the spectral curves is invariant relative to the shift of the origin from which time is measured. The phase spectrum is a nonunique function. The principal meaning of the phase spectrum is distinguished by the fact that both of its asymptotes lie between the curves  $\Delta t = \pm \frac{1}{2} f$ . The conversion of the phase spectrum from an angular to a time measurement is accomplished by means of the formula

$$\Delta t(f) = \frac{1000\phi(f)}{2\pi f} \text{ [msec].}$$

The program for calculating the spectra with computers should be written so that the phase spectra are expressed in angular units as well as time units. Orig. art. has: 3 figures.

SUB CODE: 08/ SUBM DATE: 10May65/ ORIG REF: 004/ OTH REF: 001

TS  
Card 2/2

L 17991-66 BWT(1)/EWA(h) GW

ACC NR: AT6003620

SOURCE CODE: UR/3152/65/000/007/0003/0007

AUTHOR: Khudzinskiy, L. L.

ORG: none

TITLE: An amplifier for recording the time of explosion at intermediate magnetic recording FM stations

SOURCE: Razvedochnaya geofizika, no. 7, 1965, 3-7

TOPIC TAGS: amplifier design, geophysic instrument, seismologic station, magnetic recording

ABSTRACT: An amplifier for recording impulses of short duration is described. It is noted that while intermediate magnetic recording of seismic disturbances (through the use of frequency modulation) is widely used in Soviet seismic stations, recordings of very brief seismic impulses, e. g., explosions, are of low quality. In order to improve the quality of recording of short impulses, frequency modulation and demodulation phenomena were investigated at an intermediate magnetic recording station. Experiments were carried out with square pulse modulation as suggested by Melanud (1959) and voltage demodulation with abrupt frequency changes. It was found

Card 1/2

L 17991-66

ACC NR: AT6003620

that if the carrying frequency is between 2.5-3.5 kc, the pulses of constant sign and of more than 0.0003 sec duration can be recorded satisfactorily by the use of frequency modulation. In voltage demodulation, the square voltage delivered to a demodulator was subjected to sudden frequency changes from 2120 to 3140 cycles at the time  $t = t_0$ . With respect to the demodulation of square pulses, the following points were concluded: (1) demodulator output pulse amplitude decreases with a decrease in pulse duration; (2) output pulse amplitude increases with a decrease in the time constant of an integrating chain; (3) pulses recorded on a film cannot be satisfactorily reproduced with the available demodulators; and (4) the demodulator output pulse is of maximum amplitude at a later point with respect to the time instant  $t_1$ . Orig. art. has: 5 figures.

SUB CODE: 08/

SUBM DATE: 00/

ORIG REF: 004/

OTH REF: 002

Card 2/29

ACC NR: AP6016548

SOURCE CODE: UR/0387/66/000/005/0068/0077

AUTHOR: Khudzinskiy, L.L.

ORG: Institute of Geophysics, Academy of Sciences SSSR (Akademiya nauk CCCP  
institut fiziki zemli)

TITLE: On the determination of certain parameters of homogeneous layers by their  
spectral phase characteristics

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 5, 1966, 68-77

TOPIC TAGS: seismology, seismic wave, geologic survey, seismic detection

ABSTRACT: The paper discusses possibilities for parameter determination of homogeneous geological layers (thickness, reflection coefficients) by their phase/frequency characteristics. The work was motivated by the advantages of the phase method in offering unambiguous results. Following a brief review of the amplitude and spectrum-based methods, the phase characteristics of reflected signals from homogeneous layers are considered, for normal message arrival, neglecting roof refraction and multiple waves. Investigation methods are developed for layer parameter determination solely from phase characteristics. Influence of higher order reflections is found negligible in practical cases. A computing aid in form of a transparent sheet with phase response curves for layer type selection and parameter evaluation is described. Orig. art. has 3 figures, 11 formulas and 2 tables.

SUB CODE: 08, 17/

SUBM DATE: 10Jun64/

ORIG REF: 008

Card 1/1

UDC: 550.834.5

Advanced Plants. Fruitful. Barriers. Fats. Tea.

REF. JCLP: Bot. zhurn. - Biologiya, No. 5, 1959, No. 20449

AUTHOR : Khudziukiy, M.A.; Goncharenko, E.G.

INST. :

TITLE : What Are the Best Garden Cements.

ORIG. PUB: Sadovodstvo vinogradarstvo i vinodeliya  
Moldavi, 1958, No.2, 25

ABSTRACT : A new recipe is recommended for garden cement, which has been successfully applied in Moldavia; it is prepared from 40% mullein, 50% clay, 6% carbolineum and 0.1 - 0.15% wool combings. --S.A. Izhevskiy

FILED:

1/1

SOV/85-58011-9/33

AUTHOR: Khugol', A., Chief Judge of Zonal Contests, Sverdlovsk

TITLE: The Sverdlovsk Team Leads (Vpered! Sverdlovchane)

PERIODICAL: Knyl'ya rodiny, 1958, Nr 11, p 12 (USSR)

ABSTRACT: The author reports on the 2nd Urals zonal competitions in which 49 of the foremost Urals parachutists participated in 8 teams from 6 Urals cities: Sverdlovsk, Chelyabinsk, Perm', Magnitogorsk, Ufa, and Orsk. Parachutists of the Urals Military District Air Force and of the Urals Polytechnical Institute had sent additional teams. The article gives a detailed description of the various exercises engaged in and the scores of individual contestants. Personalities mentioned include the members of the victorious Sverdlovsk aeroclub's team consisting of T. Karamysheva, V. Gur'yashina and E. Aristov, students of the Urals Polytechnical Institute, S. Kiselev, assistant, D. Mukhachev, the aeroclub's instructor-pilot and parachutist and Yu. Bovshikov, instructor in parachute folding.

ASSOCIATION: Sverdlovskiy aeroklub (Sverdlovsk Aeroclub)

Card 1/1



KBUGOL', A.A.

Seminar on standardization in the Sharkov Economic Region.

Standardizatsia 29 no. 21/2-18 1 '85.

(MIRA 18:4)

KHUKHALOV, M., prepodavatel'.

Soon they will leave for pioneer camps. Rabotnitsa 35 no. 5:25 Ky '57.  
(MIRA 10:6)

1. Moskovskiy oblastnov pedagogicheskii institut.  
(Camps)

*KHUKHAREVA I. S.*

USSR/Physics - Super-conductive films

Card 1/1 Pub. 22 - 18/56

Authors : *Khukhareva, I. S.* and Shalnikov, A., member correspondent of the Acad. of  
Scs of the USSR.

Title : On the super-conductivity of fine films of tantalum (Ta) and niobium (Nb)

Periodical : Dok. AN SSR 99/5, 735-736, Dec. 11, 1954

Abstract : Experiments with fine films of tantalum and niobium are described. The  
films were obtained either by cathode dispersion method, or evaporation  
in a high vacuum. A dependence of the super-conductive property of these  
films on the temperature was investigated. Results are presented in the  
form of graphs. One reference (1951). Graphs.

Institution: The Institute of Physical Problems of the Acad. of Scs of the USSR.

KHUKHAREVA, I. S.

AUTHOR

KHUKHAREVA, I. S.

56-7-60/66

TITLE

Measuring of the Depth of Penetration of the Magnetic Field in a Mercury Film

(Izmereniye glubiny proniknoveniya magnitnogo polya v rtutnykh plenkakh. Russian)

PERIODICAL

Zhurnal Eksperim. i Teoret. Fiziki 1957, Vol 33, Nr 7, pp 301-303 (U.S.S.R.)

ABSTRACT

By means of the condensation method a mercury film with a thickness of  $(3,7 - 9,5) \cdot 10^{-6}$  cm was produced. The resistance of the film in dependence on temperature was then measured. Further, the transition from the supraconductive to the normal state was measured at different temperatures on the occasion of an increase of the exterior magnetic field. By means of the Ginsburg-Landau formula the penetration depth  $\delta$  was computed at  $(5,3 + 0,4) \cdot 10^{-6}$  cm. The temperature dependence of  $\delta(T)$  can be described by the function

$$\delta(T) = \delta_0 \left[ 1 - (1 - T/T_K)^4 \right]^{-1/2}$$

(With 1 table, 1 illustration, and 3 Slavic references).

Card 1/2

56-7-60/66  
Measuring of the Depth of Penetration of the Magnetic Field in a  
Mercury Film

ASSOCIATION

Moscow State University  
(Moskovskiy gosudarstvennyy universitet)

PRESENTED BY

SUBMITTED

17.4.1957

AVAILABLE

Library of Congress

Card 2/2

28753

S/056/61/041/003/006/020  
B125/B102

24.2/40 (1033, 1072, 1141)

AUTHOR: Khukhareva, I. S.

TITLE: Superconductive properties of freshly deposited mercury films

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,  
no. 3(9), 1961, 728-734

TEXT: The author tested mercury films deposited on backings by high-vacuum condensation. The backings were kept at a temperature close to that of liquid helium. The experimental results obtained are confronted with the theory of superconductive alloys by A. A. Abrikosov and L. P. Gor'kov. The mercury was sputtered on the polished bottom of a glass vessel with platinum leads at 4.2°K and at a rate of  $1.1-1.3 \cdot 10^{-3}$  g/min. The mercury films produced and tested by the author had a thickness of  $0.46 \cdot 10^{-5}-12.2 \cdot 10^{-5}$  cm. The resistivity of the films was measured with a conventional potentiometer circuit. The critical temperature of freshly deposited films was slightly below the critical temperature of bulk mercury. The dependence of the critical temperature on the thickness,

Card 1/4

Superconductive properties of...

287E3  
S/056/61/041/003/006/020  
B125/B102

observed by the author, agrees well with the results published by L. A. Prozorova (ZhETF, 34, 14, 1958). The critical temperature of annealed specimens is virtually as high as the critical temperature of a bulk specimen ( $4.15^{\circ}\text{K}$ ), and is independent of the film thickness. The superconductive properties of annealed specimens are more pronounced than those of freshly deposited films. Also other properties of such films are considerably changed by annealing. The resistivity in the normal state is reduced to less than one-tenth. The dependence of the resistivity on the thickness of the freshly deposited films remained constant even for the thinnest specimens tested by the author. It increased, however, in proportion to the thickness of the annealed specimens. In one experiment, a freshly deposited film exhibited a conductivity,  $\sigma$ , of  $0.15 \cdot 10^{18}$  CGSE units. The adjustment of the films parallel to the field was checked by rotating the magnet. The error was smaller than  $0.1^{\circ}$ . The critical magnetic field strength applied to thin specimens, at which the superconduction vanishes, is given by  $H_c \sim T^{1/2}$ . For thick films, however, the dependence of the critical field strength on  $\Delta T$  shows a break. Discussion of the results: The macroscopic theory of V. L. Ginzburg and L. D. Landau

Card 2/4

28753

S/056/61/041/003/006/020  
B125/B102

Superconductive properties of...

was applied by Abrikosov specifically to low-temperature condensation assuming  $\kappa \gg 1/\sqrt{2}$ , where  $\kappa$  is the parameter from the Ginzburg-Landau (ZhETF, 20, 1064, 1950) theory. Abrikosov (DAN SSSR, 86, 489, 1952) detected a universal relation between the critical magnetic field strength,  $H_c$ , of the film and its thickness,  $d$ . This relation holds for all superconductors. Assuming  $\kappa = (\sqrt{2} e_{\text{eff}}/\hbar c) H_{c0} \delta_0^2$ , where  $e_{\text{eff}} = 2e$ , one finds  $H_c/2\theta^2 = f(2.57 \cdot 10^{-4}/\theta d)$ , where  $\theta = \sqrt{2e/\hbar c} H_{c0} \delta_0$ ;  $H_{c0}$  is the critical field strength of the bulk metal. Near  $T_c$  one obtains  $\theta = A\Delta T^{1/2}$  and  $A = \sqrt{e/2\hbar c} (dH_{c0}/dT)_{T_c} \sqrt{T_c} \delta_{00}$ . The experimental results agree well with theoretical predictions. The constant coefficient  $\delta_{00}$  in the temperature dependence of the penetration depth near  $T_c$  is  $(22.6 \pm 2.3) \cdot 10^{-6}$  cm if  $d/\delta_{00} \gg 1$ . In the other case ( $d/\delta_0 \ll 1$ ) one obtains  $H_c/2\theta^2 = \sqrt{3} \cdot 2.57 \cdot 10^{-4}/\theta d$ . The specimen thickness thus calculated agrees with that determined by weighing. From the new theory of superconductive alloys by A. A. Abrikosov and L. P. Gor'kov (ZhETF, 35, 12, 1958; 36, 319, 1959) it follows that

Card 3/4



28753

S/056/61/041/003/006/020  
B125/B102

Superconductive properties of...

$\delta_{00} = \frac{c}{3.06\pi} \sqrt{\frac{2\hbar}{kT_0\sigma}}$ , where  $\sigma$  symbolizes the conductivity in the normal state. For freshly deposited films the author found  $\delta_{00} = 16 \cdot 10^{-6}$  cm.

The experimental data on the critical field strengths of annealed specimens agree well with conclusions drawn from the macroscopic theory of Ginzburg and Landau. For the range of  $T \rightarrow T_0$  it follows that

$\delta_{00} = (6.2 \pm 0.6) \cdot 10^{-6}$  cm. A. I. Shal'nikov is thanked for guidance, and

A. A. Abrikosov for discussions. There are 6 figures and 9 references: 7 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: E. T. S. Appleyard, J. R. Bristow, H. London, A. D. Misener. Proc. Roy. Soc., A172, 540, 1939.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: April 27, 1961

Card 4/4

24.2120

L1126  
S/056/62/043/004/009/061  
B102/B180

AUTHOR: Khukhareva, I. S.

TITLE: Superconductive properties of thin aluminum films

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43,  
no. 4(10), 1962, 1173 - 1178

TEXT: Resistivity and absolute conductivity of aluminum films  $0.2 \cdot 10^{-5}$  to  $14 \cdot 10^{-5}$  cm thick were investigated in the range 4.2 - 0.9°K with and without magnetic field. The films were condensed in vacuo ( $\sim 10^{-7}$  mm Hg) upon cold polished glass plates with platinum contacts. The evaporation rate was  $2-6 \cdot 10^{-4}$  g/min. The apparatus used is described in ZhETF, 41, 728, 1961. Immediately after condensation the films had an anomalously high  $T_{cr}$ , occasionally reaching 3-3.2°K, as compared with 1.160°K for the initial material (cf. Zs. Physik, 138, 109, 1954).  $T_{cr}$  fell to  $\sim 1.5$ °K after prolonged annealing at room temperature. 3-4 hrs more annealing at 300°C (3-4 hrs) reduced it to values the same as for films condensed at room temperature, but still 0.1°K higher than for massive aluminum. For depths below d  
Card 1/3

Superconductive properties ...

S/056/62/043/004/009/061  
B102/B190

$\sim 5 \cdot 10^{-5}$  cm  $T_{cr}$  is highly  $d$ -dependent. Immediately after condensation  $\sigma$ , the absolute conductivity was independent of  $d$ , after annealing at  $300^\circ\text{C}$  it had increased ten times and was highly  $d$ -dependent. Below  $d > 1 \cdot 10^{-5}$  cm it drops suddenly showing exactly the opposite course to  $T_{cr}(d)$ . These effects are attributed mainly to differences in the mean free paths. The destruction of superconductivity by parallel magnetic fields was studied on  $H_{cr} = f(\Delta T)$  curves where  $\Delta T = T_{cr} - T$ , characterizing the London-type region of superconductivity. For thin films condensed at room temperature and freshly condensed ones produced at  $4.2^\circ\text{K}$  and for all films after annealing,  $H_{cr} \sim (\Delta T)^{1/2}$ . Only the thickest fresh films showed a salient point changing over to a  $H_{cr} \sim \Delta T$  course. This flattened out after annealing. From conductivity, the penetration depth near  $T_{cr}$  was calculated for  $1 \ll \delta_0$  using the theory of Abrikosov and Gor'kov (ZhETF, 36, 319, 1959). For  $\delta(\Delta T) = (c/3.06n) \sqrt{1/2k\Delta T} = 1/2 \delta_{00} (T_{cr}/\Delta T)^{1/2}$ , it was found that  $\delta_{00} = (16.5 \pm 0.7) \cdot 10^{-6}$  cm. Using the Ginzburg-Landau formula (ZhETF, 20, 1064, 1950) and  $H_{cr}$  values,  $\delta_{00} = (13.5 \pm 0.7) \cdot 10^{-6}$  cm. For freshly prepared films,  $\delta_{00} = (4.1 \pm 0.2) \cdot 10^{-5}$  cm

Card 2/3

Superconductive properties ...

S/056/62/043/004/009/061  
B102/B180

from conductivity, and  $\xi = (3.9 \pm 0.3) \cdot 10^{-5}$  cm from H<sub>cr</sub>. These are in good agreement but are higher<sup>00</sup> than those obtained for massive aluminum. There are 6 figures. 10

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University) f

SUBMITTED: May 9, 1962

Card 3/3



I 59565-65

ACCESSION NR: A5700346

maximum at 10-100 K. It is proposed that an increase in the critical current density as a result of a change in the cubic body-centered structure of the solid state. Different effects of varying the temperature and varying the concentration are discussed. Orig. text has 2 figures, 1 formula, and 1 table.

ASSOCIATION: Department of High-Energy Physics, Joint Institute for Nuclear Research

SUBMITTED: 000005

ENCL: 00

SUB CODE: MM, 25

NR REF ROW: 004

OTHER: 01B

Card 2/2

ACCESSION NR: AP4041044

S/0120/64/000/003/0170/0171

AUTHOR: By\*chkov, Yu. F.; Goncharov, I. N.; Kuz'min, V. I.;  
Khukhareva, I. S.

TITLE: Effect of heat treatment on the properties of superconductive  
zirconium-niobium alloys

SOURCE: Pribery\* i tekhnika eksperimenta, <sup>9</sup>no. 3, 1964, 170-171

TOPIC TAGS: zirconium niobium alloy, alloy superconductivity, alloy  
critical current density, superconducting alloy, alloy critical tem-  
perature

ABSTRACT: The effect of heat treatment on the critical temperature  
( $T_K$ ) and critical current density ( $j_K$ ) of niobium-zirconium alloys  
containing 65—80% Zr was investigated. The alloy specimens were  
melted from iodide zirconium and electron beam refined niobium in an  
arc furnace in an argon atmosphere. After rolling from 5 to 1 mm,  
the specimens were annealed and rolled to 0.03—0.04 mm. The criti-  
cal current density was measured at 4.2K in a magnetic field parallel  
to the rolling plane and perpendicular to the current direction. The

Card 1/4

ACCESSION NR: AP4041044

dependance of  $T_K$  and  $j_K$  on annealing temperature in the 27-00 field is shown in Fig. 1 of the Enclosure. An increase in  $j_K$  after annealing at 400—500C was caused by a change in the structure of the  $\beta$ -phase or precipitation of the metastable  $\omega$ -phase. The x-ray diffraction patterns revealed three phases on the specimen surface: an initial  $\beta$ -phase with 80% Zr,  $\alpha$ -Zr, and a small quantity of  $\beta$ -phase with 15% Zr. At a depth of 0.05 mm, the  $\alpha$ -phase and Nb  $\beta$ -phase with 15% Zr disappeared. Thus in the formation of new phases, an initial stage of recrystallization occurs only in a thin surface layer. Prolonged annealing at 570C raises the  $T_K$ , but lowers the  $j_K$  (see Fig. 2). Orig. art. has: 2 figures.

ASSOCIATION: Ob'yedinenny\*y institut yadarny\*kh issledovaniy (Joint Institute of Nuclear Research).

SUBMITTED: 12Jun63

ATD PRESS: 3076

ENCL: 02

SUB CODE: MM

NO REF SOV: 001

OTHER: 003

Card

2/4



ACCESSION NR: AP401044

ENCLOSURE: 01

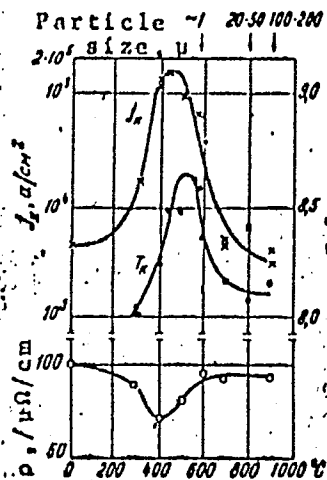


Fig. 1. Dependence of  $j_K$  and  $T_K$  on annealing temperature (annealing time 1 hr) for Nb + 80% Zr alloy (magnetic field 27 oersted)

Card

3/4

ACCESSION NR: AP4041044

ENCLOSURE: 02

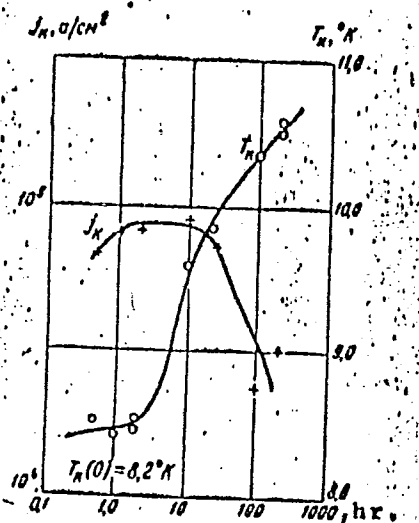


Fig. 2. Dependence of  $j_K$  and  $T_K$  on annealing time at 570°C Nb + 80% Zr alloy (magnetic field 27 oe)

L 43203-65 EPE(R)-2/EWP(1)/EWT(1)/EW(1)/EWP(5)/EWA(4)/EWB(1) PU-4 TOP(1) 1/1  
 5/0056/05/048/003/0818/0824-02

35/36  
 ACCESSION NR: AP5008738

AUTHOR: Bychkov, Yu. F.; Gochikov, I. N.; Khukhareva, I. S.

TITLE: Effect of the structural state on the superconducting properties of niobium alloys containing 20-25% niobium

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 48, no. 3, 1965, 818-824

TOPIC TAGS: superconductivity; niobium base alloy; niobium containing alloy; metal physical property

ABSTRACT: A detailed study was made of the effect which the structural state of an alloy has on its superconducting and mechanical properties. The following properties were measured: electrical resistance, critical temperature, critical current density as a function of the orientation of the magnetic field with respect to the plane of rolling, tensile strength, hardness, relative elongation as a function of annealing temperature (1 hour). The most interesting properties were observed in the  $\alpha$ -phase or metastable  $\alpha$ -phase region (high critical current densities, in the latter case, current anisotropy is also nearly completely absent). The results are qualitatively explained on the basis of Anderson's theory (P. W. Anderson, Phys.

Card 1/2

L 43203-65

ACCESSION NR: AP5008738

Rev. Lett., 2, 309, 1962; P. W. Anderson, J. B. Kim, Rev. Mod. Phys., 36, 39, 1964.  
It is shown that the critical current density may increase even when the number of  
dislocations or vacancies decreases if there are other current stabilisation  
mechanisms. A relationship is found between variation in the critical temperature  
and dissolution of a B<sup>2</sup> solid solution during annealing. Orig. art. has: 2 figures  
and 1 table.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of  
Nuclear Research)

SUBMITTED: 15 Oct 64

ENCL: 00

SUB CODE: MM, SS

NO REF SOV: 009

OTHER: 009

AFD PRESS: 3242

Superconductor alloy

Card 2/2 CC